

Mainly constituents with viscosity indices, which are higher than that of the feed;

- C1
- c) fractionating at least a portion of the oil residue obtained in step b) by thermal diffusion into oil fractions with high viscosity indices and separating the oil fractions in accordance with their viscosity index, and recycling at least part of at least one fraction with low viscosity index from c) to a).
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- C2
4. (Thrice Amended) A process according to claim 2, in which at least a portion of unconverted fractions recovered in a) or d) are recycled either to a) or to d) or partially to both a) and d)
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5. (Thrice Amended) A process according to claim 2, in which recycle streams from c) comprising fractions from c) with low viscosity indices, are recycled at least partially to both a) and d).
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- C3
14. (Amended) A process according to claim 9, in which the catalyst of a) comprises a total concentration of oxides of metals from groups VIB and VIII in the range of about 5% to 40% by weight, with a ratio between the metal from group VIB and the metal from group VIII, expressed as metal oxides, of about 20 to 1 by weight.
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15. (Amended) A process according to claim 9, in which the matrix of the catalyst for d) is selected from the group consisting of alumina, silica, silica-alumina, alumina-boron oxide, magnesia, silica-magnesia, zirconia, titanium oxide and clay, these compounds being used alone or as a mixture.
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16. (Amended) A process according to claim 9, in which the catalyst for d) comprises a total concentration of oxides of metals from groups


VIB and VIII in the range from about 1% to 40% by weight, the ratio between the group VIB metal and the group VIII metal expressed as metal oxides, being in the range about 20 to 1.25 by weight, and a concentration of phosphorous oxides being less than about 15% by weight.

 17. (Amended)

~~A process according to claim 15, in which the catalyst for d) comprises a total concentration of oxides of metals from groups VIB and VIII in the range from about 1% to 40% by weight, the ratio between the group VI metal and the group VIII metal expressed as metal oxides, being in the range about 20 to 1.25 by weight, and the concentration of phosphorous oxides being less than about 15% by weight.~~

18. (Thrice Amended)

A process for producing oils with a high viscosity index from a feed containing constituents with boiling points of more than about 300°C comprising

-  a) reacting hydrogen with the feed or with a mixture of the feed with at least a fraction of a stream recycled from c), in the presence of a catalyst comprising at least one amorphous non zeolite matrix and at least one metal or compound of a metal from group VIII of the periodic table and/or at least one metal from group VIB to produce an effluent;
- b) fractionating at least a portion of the liquid effluent obtained from a) so as to separate at least one oil residue comprising mainly constituents with viscosity indices, which are higher than that of the feed;
- c) fractionating at least a portion of the oil residue obtained in step b) by thermal diffusion into oil fractions with high

C4

viscosity indices, and separating the oil fractions in accordance with their viscosity index with proviso that b) is not preceded by treatment of the effluent of a) with hydrogen in the presence of a zeolite.

Please add the following new Claim:

~~21~~
C5
-- 21.

- a') A process according to Claim 1, further comprising fractionating the effluent obtained from a) or d) in at least one separator, into at least one gaseous effluent, which is evacuated and into at least one liquid effluent which is sent to b). --